September, 9, 2004, AFTRCC further updated the record by submitting an *ex parte* filing that indicates AFTRCC now intends to further explore with the ARRL the possibility of a coordination agreement.[92]

46. In reply comments, ARRL states that it does not disagree with Motorola's comments on the proposal set forth in the *AWS Fourth NPRM* for the band 2360-2400 MHz. With respect to AFTRCC, ARRL states in its reply comments that the parties have conferred and agreed to cooperatively develop coordination procedures that will lead to a compatible, co-primary sharing plan for the band 2390-2395 MHz. ARRL further contends that it is unnecessary for the Commission to view the band 2390-2395 MHz allocation as an "either/or" situation because both flight test telemetry and amateur operations can be accommodated. ARRL states that it looks forward to finalizing with AFTRCC a cooperative, compatible sharing plan that allows co-primary amateur and flight test operations in the band 2390-2395 MHz. ARRL recommends that the Commission proceed with the allocations proposed in the *AWS Fourth NPRM*, affirm the need for cooperative frequency coordination efforts between Federal and non-Federal government flight test telemetry and other aeronautical mobile uses in the band 2390-2395 MHz band, and make no allocation changes to the band 2395-2400 MHz.[93]

4. Decision

47. We are adopting our proposals for the band 2360-2400 MHz. Commenters generally support these proposals and we find that their adoption will play a major role in facilitating the introduction of AWS by permitting DOD to relocate essential aeronautical mobile systems to the band 2360-2395 MHz from the band 1710-1755 MHz. With regard to the concerns voiced by AFTRCC, that new amateur use of the band 2390-2395 MHz should be precluded and existing amateur use of that band should be grandfathered, we decline to adopt such measures. We believe that shared use should not impose an undue constraint on either service. Amateur access to the band on a primary basis was established relatively recently – in 1995 – and we note that amateur use of the band appears to be relatively light.[94] Moreover, aeronautical mobile use of the band will likely be predominantly at remote facilities.[95] We also will not impose coordination requirements between amateur and aeronautical flight testing operations. We observe that the potential for interference from amateur operations, even directional point-to-point operations, to flight testing operations, would be small, due to the high altitudes of aeronautical mobile flight testing transmitters, and the correspondingly high elevation and off-axis attenuation of high gain flight testing receive antennas on the ground. Although, as noted by AFTRCC, low antenna elevation angle and off-axis attenuation of flight testing receive antennas, and line-of-site conditions, could occur, and thus we cannot rule out the possibility of interference to flight testing from amateur operations, we believe the likelihood of such an occurrence is limited by the remoteness of flight testing facilities, and the relatively light use of the band 2390-2395 MHz band by amateurs. Also, as indicated by the current lack of agreement regarding coordination between ARRL and AFTRRC, and especially given the flexibility of amateurs to operate without specific station authorization or registration

[92] *See* AFTRCC *ex parte* filing, filed September 9, 2004.

[93] ARRL Reply Comments at 3-7.

[94] *See Allocation of Spectrum Below 5 GHz Transferred from Federal Government Use*, ET Docket No. 94-32, *First Report and Order and Second Notice of Proposed Rule Making*, 10 FCC Rcd 4769 (1995) at Appendix F, Final Rules, (amending Section 2.106, Table of Frequency Allocations, to reflect upgrade, to primary status, of the amateur service allocation in the band 2390-2400 MHz). *See also Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service ("WCS")*, GN Docket No. 96-228, *Report and Order*, 12 FCC Rcd 10785 (1997) at Appendix B, Final Rules, (amending Section 97.303(j)(2), Frequency sharing requirements, to reflect the upgrade to primary status).

[95] *See also AWS Fourth NPRM* at ¶ 59.

on the Commission's database, it appears impractical to establish an effective coordination requirement at this time. We also conclude that, because most flight testing is conducted at high altitudes with low output power at remote facilities, the reverse potential for interference from flight testing operations into amateur operations is also small. Therefore, we will not require that flight testing operations be coordinated with amateur operations.[96] Recognizing that this is a unique approach to shared use of the band, in the unlikely event that interference occurs to either flight testing or amateur operations, we expect that both parties will work together to identify and resolve the interference or find a mutually acceptable solution. Should these efforts not succeed, the matter should be referred to the FCC or NTIA for resolution.

48. We decline to adopt the Sirius/XM recommendation that all new Government and non-Government aeronautical mobile operators in the band 2360-2395 MHz meet the OOBE limits that apply to WCS licensees at 2305-2320/2345-2360 MHz to protect Satellite DARS receivers in the band 2320-2345 MHz from interference. We find those limits to be inappropriate for aeronautical mobile services at 2360-2395 MHz. It is extremely unlikely that aeronautical mobile transmitters would be in close enough proximity to Satellite DARS receivers so as to create a potential for harmful interference to those receivers. In this regard, we observe that aeronautical mobile operations will not be widespread and will often occur in the vicinity of test ranges. Thus, it is expected that there normally would be large separation distances between aeronautical mobile transmitters and Satellite DARS receivers. We also observe that Satellite DARS signal strength is generally sufficiently high to overcome potential interference from aeronautical mobile transmitters even in an unusual case where the DARS receiver is relatively close to the aeronautical transmitter. Further, Sirius/XM have provided no analysis or other information demonstrating that tighter emission limits are necessary to ensure that spurious emissions from aeronautical transmitters do not cause harmful interference to Satellite DARS receivers. We find that Sirius/XM have not established any basis or need for applying the WCS OOBE limits to aeronautical mobile services at 2360-2395 MHz. Accordingly, we will apply the OOBE limits specified in Section 87.139 of our Rules to aeronautical mobile operations in the band 2360-2395 MHz.

49. Finally, no commenting party opposed the removal of the WCS from the band 2385-2390 MHz or UPCS from the band 2390-2400 MHz. Therefore, we adopt those proposals to help clear the spectrum for new uses.

50. Accordingly, as proposed in the *AWS Fourth NPRM*, we adopt footnote US276 to clearly indicate the allocations for the band 2360-2395 MHz, to read as follows:[97]

> US276 Except as otherwise provided for herein, use of the band 2360-2395 MHz by the mobile service is limited to aeronautical telemetering and associated telecommand operations for flight testing of aircraft, missiles or major components thereof. The following three frequencies are shared on a co-equal basis by

[96] Nevertheless, we are encouraged by indications from AFTRCC that the parties may yet establish a coordination agreement, because such an agreement is likely to further reduce the likelihood of interference. *See supra* ¶ 45.

[97] *AWS Fourth NPRM* at ¶¶ 55-58. The adopted footnote differs slightly from the proposed footnote because, subsequent to the *AWS Fourth NPRM*, we modified footnote US276 to delete references to the band 2320-2345 MHz and the frequency 2332.5 MHz. *See Above 28 MHz R&O* at ¶ 40 and Appendix B. To be consistent with the *2002 Viability Assessment*, the scope of Federal Government aeronautical mobile operations to be relocated or accommodated in the band 2360-2395 MHz need not be expanded beyond aeronautical mobile telemetry for flight testing, nor the scope of other Federal Government mobile operations be expanded beyond mobile telemetry, as is the case for both Federal Government and non-Federal Government aeronautical and other mobile operations in current footnote US276. We have retained the limitation in the adopted footnote, accordingly. Finally, we have made minor editorial changes deleting the word "Government" from any references to Federal Government or non-Federal Government in footnotes US276, G2, and G122.

Federal and non-Federal stations for telemetering and associated telecommand operations of expendable and reusable launch vehicles whether or not such operations involve flight testing: 2364.5 MHz, 2370.5 MHz, and 2382.5 MHz. All other mobile telemetering uses shall be secondary to the above uses.

C. Other Matters

51. In Appendix A to the *AWS Fourth NPRM*, we proposed changes to Sections 15.301, 15.303, 15.319, and 15.321 of our Rules. In those proposed rule sections, we erroneously deleted references to the asynchronous 1910-1920 MHz portion of the greater 1910-1930 MHz UPCS band. In the interim, in the *800 MHz/Nextel Order*, we have adopted rules redesignating the 1910-1915 MHz lower half of the 1910-1920 MHz band for Nextel.[98] We have also adopted rules redesignating the 1915-1920 MHz upper half of the 1910-1920 MHz band for AWS use.[99] Accordingly, in Appendix C herein, the UPCS rules we adopt reflect those decisions.

IV. PROCEDURAL MATTERS

A. Regulatory Flexibility Act

52. The Final Regulatory Flexibility Analysis, required by the Regulatory Flexibility Act, *see* 5 U.S.C. § 604, is contained in Appendix B.

B. Paperwork Reduction Act

53. This document does not contain new or modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. In addition, therefore, it does not contain any new or modified "information collection burden for small business concerns with fewer than 25 employees," pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. § 3506(c)(4).

C. Congressional Review Act

54. The Commission will send a copy of this Seventh Report & Order in a report to be sent to Congress and the General Accounting Office pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(A).

V. ORDERING CLAUSES

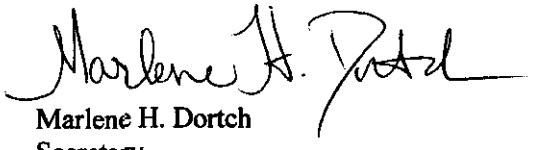
55. Accordingly, IT IS ORDERED that, pursuant to Sections 1, 4(i), 7(a), 302(a), 303(f), and 303(g) of the Communications Act of 1934, as amended, 47 U.S.C. Sections 151, 154(i), 157(a), 302(a), 303(f), and 303(g), this Seventh Report and Order IS ADOPTED and that Parts 1, 2, 15, 27, 87, and 97 of the Commission's Rules ARE AMENDED as specified in Appendix C, effective 30 days after publication in the Federal Register.

[98] *See 800 MHz/Nextel Order* ¶¶ 227-231.

[99] *See AWS Sixth R&O.*

56. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this SEVENTH REPORT AND ORDER, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION



Marlene H. Dortch
Secretary

APPENDIX A

COMMENTERS TO THE *AWS FOURTH NPRM*

Comments

Aerospace and Flight Test Radio Coordinating Council
Association for Maximum Service Television, Inc. and the National Association of Broadcasters
Cellular Telecommunications & Internet Association
Cingular Wireless LCC
Ericsson, Inc.
Gannett Co., Inc
Motorola, Inc.
National Association for Amateur Radio (also known as the American Radio Relay League or ARRL)
Sirius Satellite Radio Inc. and XM Radio Inc.
Society of Broadcast Engineers, Inc.
Space Imaging LLC

Reply Comments

Aerospace and Flight Test Radio Coordinating Council
Cingular Wireless LCC
Motorola, Inc.
National Association for Amateur Radio (also known as the American Radio Relay League or ARRL)
Society of Broadcast Engineers, Inc.

APPENDIX B

FINAL REGULATORY FLEXIBILITY ANALYSIS

As required by the Regulatory Flexibility Act ("RFA"),[100] an Initial Regulatory Flexibility Analysis ("IRFA") was incorporated in the *Fourth Notice of Proposed Rule Making* ("*AWS Fourth NPRM*") in this proceeding. The Commission sought written comment on the proposals in the *AWS Fourth NPRM*, including comments on the IRFA.[101] The present Final Regulatory Flexibility Analysis ("FRFA") conforms to the RFA.

A. Need for, and Objectives of, the Adopted Rules

In this Seventh Report and Order, we allow the Department of Defense ("DOD") to use the band 2025-2110 MHz ("2 GHz") on a co-equal, primary basis with non-Federal Government operations for DOD earth stations at 11 sites that support DOD space operations. DOD access to the 2 GHz band may make more spectrum available in the band 1755-1850 MHz for absorbing certain DOD systems displaced from the band 1710-1755 MHz. In addition, we permit the DOD to operate stations in the fixed and mobile services in the 2 GHz band on a secondary (non-interference) basis at six sites in the southwestern region of the United States.

We also make numerous allocation changes to the band 2360-2400 MHz, the most significant of which rescinds the recent establishment of Wireless Communications Services at 2385-2390 MHz, allows Federal and non-Federal Government flight test stations to operate in the band 2385-2395 MHz, and no longer permits the band 2390-2400 MHz to be used by Unlicensed Personal Communications Services ("UPCS") applications. These allocation changes permit DOD to relocate all aeronautical mobile systems out of the band 1710-1755 MHz, which is a major objective for facilitating the introduction of Advanced Wireless Services ("AWS"). In addition, these allocation changes provide needed replacement spectrum for use by DOD and commercial flight test stations, which recently lost access to the 35 megahertz of spectrum at 1525-1535 MHz and 2320-2345 MHz. Thus, these actions are a significant step forward toward the introduction of AWS while ensuring that the provision of important military services is not compromised.

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

We received no comments directly in response to the IRFA. We did, however, consider the potential impact of the proposed rules on smaller entities, and conclude that any impact will not be adverse. While new DOD use of the 2 GHz band will require coordination between DOD and existing TV Broadcasting Auxiliary Services ("BAS") licensees, the burden will be on DOD to demonstrate that its new use can be accomplished on a non-interference basis.

C. Description and Estimate of the Number of Small Entities to Which the Adopted Rules Will Apply

The RFA directs agencies to provide a description of, and, where feasible, an estimate of, the number of small entities that may be affected by the proposed rules, if adopted.[102] The RFA generally

[100] *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. §§ 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1966 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

[101] AWS Fourth NPRM, 18 FCC Rcd 13235 (2003) ¶ 64 and Appendix B.

[102] 5 U.S.C. § 604(a)(3).

defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[103] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[104] A "small business concern" is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).[105]

A small organization is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."[106] Nationwide, there are approximately 1.6 million small organizations.[107] "Small governmental jurisdiction" generally means "governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than 50,000."[108] As of 1997, there were approximately 87,453 governmental entities in the United States.[109] This number includes 39,044 county governments, municipalities, and townships, of which 37,546 (approximately 96.2%) have populations of fewer then 50,000 and 1,498 have populations of 500,000 or more. Thus, we estimate the number of small governmental jurisdictions overall to be approximately 84,098 or fewer.

In the 2 GHz band, the rules adopted in this Report and Order affect licensees in the Television BAS, the Local Television Transmission Service ("LTTS"), and the Cable Television Relay Service ("CARS").

BAS. This service uses a variety of transmitters to relay broadcast programming to the public (through translator and booster stations) or within the program distribution chain (from a remote news gathering unit back to the stations). There are approximately 712 TV BAS licensees in the 1990-2110 MHz band, and these licensees will ultimately be required to use only the 2 GHz portion of that band.[110] It is unclear how many of these will be affected by our new rules.

The Commission has not developed a definition of small entities specific to BAS licensees. The U.S. Small Business Administration (SBA) has developed small business size standards, as follows: For TV BAS, we use the size standard for Television Broadcasting, which consists of all such companies having annual receipts of no more than $12.0 million.[111] According to Census Bureau data for 1997,

[103] 5 U.S.C. § 601(6).

[104] 5 U.S.C. § 601(3) (incorporating by reference the definition of "small-business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

[105] 15 U.S.C. § 632.

[106] 5 U.S.C. § 601(4).

[107] Independent Sector, The New Nonprofit Almanac and Desk Reference (2002).

[108] 5 U.S.C. § 601(5).

[109] U.S. Census Bureau, Statistical Abstract of the United States: 2000, Section 9, pages 299-300, Tables 490 and 492.

[110] The IRFA mistakenly listed the number of TV BAS licensees for the sub-band 1990-2025 MHz rather than for the entire band 1990-2110 MHz. There are approximately 144 more licensees in the entire band than in the sub-band.

[111] 13 C.F.R. § 121.201, NAICS code 515120.

there were 906 Television Broadcasting firms, total that operated for the entire year.[112] Of this total, 734 firms had annual receipts of $9,999,999.00 or less and an additional 71 had receipts of $10 million to $24,999,999.00.[113] Thus, under this standard, the majority of firms can be considered small.

CARS. There are nine CARS mobile licensees in the 1990-2110 MHz band, and these licensees will ultimately be required to use only the 2 GHz portion of that band.[114] It is unclear how many of these will be affected by our new rules. The SBA has developed a small business size standard for Cable and other Program Distribution, which consists of all such companies having annual receipts of no more than $12.5 million.[115] According to Census Bureau data for 1997, there were 1,311 firms within the industry category Cable and Other Program Distribution, total, that operated for the entire year.[116] Of this total, 1,180 firms had annual receipts of $9,999,999.00 or less, and an additional 52 firms had receipts of $10 million to $24,999,999.00.[117] Thus, under this standard, the majority of firms can be considered small.

LTTS. There are 34 LTTS licensees in the 1990-2110 MHz band, and these licensees will ultimately be required to use only the 2 GHz portion of that band.[118] It is unclear how many of these will be affected by our new rules. The Commission has not yet defined a small business with respect to local television transmission services. For purposes of this FRFA, we will use the SBA's definition applicable to Cellular and Other Wireless Telecommunications – *i.e.*, an entity with no more than 1,500 persons.[119] According to Census Bureau data for 1997, there were 977 firms in this category, total, that operated for the entire year.[120] Of this total, 965 firms had employment of 999 or fewer employees, and an additional 12 firms had employment of 1,000 employees or more.[121] Thus, under this size standard, the majority of firms can be considered small.

In the band 2360-2390 MHz, the rules adopted in this Report and Order are not expected to impact licensees of flight test stations, except to provide those licensees continued access to the sub-band 2385-2390 MHz. That is, Federal and non-Federal Government licensees of flight test stations have long shared the band 2360-2390 MHz and our new rules essentially return the sub-band 2385-2390 MHz to its state prior to reallocation. The additional flexibility given to Federal Government users is not expected to impact licensees of flight test stations because this use would be on a secondary basis.

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[112]U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, "Receipts Size of Firms Subject to Federal Income Tax: 1997," Table 4, NAICS code 515120 (issued Oct. 2000).

[113]*Id.* The census data do not provide a more precise estimate.

[114]The IRFA mistakenly listed the number of CARS licensees for the sub-band 1990-2025 MHz rather than for the entire band 1990-2110 MHz. However, the number of CARS licensees is the same in the sub-band as in the entire band.

[115]*Id.* at NAICS code 515120.

[116]*Id.*

[117]*Id.* The census data do not provide a more precise estimate.

[118]The IRFA mistakenly listed the number of LTTS licensees for the sub-band 1990-2025 MHz rather than for the entire band 1990-2110 MHz. However, the number of LTTS licensees in each band differs by only one.

[119]13 C.F.R. §§ 121.201, NAICS code 517212.

[120]U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, "Employment Size of Firms Subject to Federal Income Tax: 1997," Table 5, NAICS code 517212 (issued Oct. 2000).

[121]*Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is "Firms with 1,000 employees or more."

In the band 2390-2400 MHz, the rules adopted in this Report and Order are not expected to greatly impact licensees in the amateur service. Federal and non-Federal Government use of the band 2390-2395 MHz is expected to occur at only a limited number of aeronautical telemetry ranges in remote areas. We have reviewed our files and have found that no unlicensed PCS device has been authorized in the band 2390-2400 MHz.

D. Description of Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

The new rules require that DOD coordinate a request for use of frequencies in the 2 GHz band prior to submitting an application to the Commission through the Frequency Assignment Subcommittee of the Interdepartment Radio Advisory Committee of the National Telecommunications and Information Administration. Commission licensees may choose to conduct studies or incur other expenses during the coordination process.[122] This will entail costs typically associated with the coordination process. In addition, we observe that DOD will be the party initiating coordination.

E. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered.

The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.[123]

We are requiring that the 11 DOD earth stations that will operate in the 2 GHz band prior coordinate their frequency use with existing TV BAS licensees. Such a requirement will ensure that these earth stations operate in a manner that minimizes the potential of causing harmful interference. This action is expected to protect incumbent BAS, LTTS, and CARS systems from service disruptions caused by receiving harmful interference. Some commenters recommended that we not relocate these earth stations to the 2 GHz band,[124] but we find that such relocation will not adversely impact incumbents and is essential to facilitate the introduction of AWS.

F. Report to Congress

The Commission will send a copy of the Report and Order, including this FRFA, in a report to be sent to Congress pursuant to the Congressional Review Act.[125] In addition, the Commission will send a copy of the Report and Order, including this FRFA, to the Chief Counsel for Advocacy of the Small Business Administration. In addition, the Report and Order including the FRFA (or summaries thereof) will be published in the Federal Register.[126]

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[122] *See* Seventh Report and Order ¶ 27.

[123] 5 U.S.C. § 603(c).

[124] *See, e.g.*, comments of the Society of Broadcast Engineers, Inc., as described in the Seventh Report and Order ¶ 20.

[125] 5 U.S.C. § 801(a)(1)(A).

[126] 5 U.S.C. § 604(b).

APPENDIX C

FINAL RULES

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 C.F.R. Parts 1, 2, 15, and 87 as follows:

PART 1 – PRACTICE AND PROCEDURE

1. The authority citation for part 1 continues to read as follows:

AUTHORITY: 47 U.S.C. 151, 154(i), 154(j), 155, 225, 303(r), 309, and 325(e) unless otherwise noted.

2. Section 1.1307(b)(1) is amended by revising the entry for "Wireless Communications Service (part 27)" to read as follows:

§ 1.1307 Actions that may have a significant environmental effect, for which Environmental Assessments (EAs) must be prepared.

* * * * *

(b)(1) * * *

TABLE 1 - TRANSMITTERS, FACILITIES AND OPERATIONS SUBJECT TO ROUTINE ENVIRONMENTAL EVALUATION

Service (title 47 CFR rule part)	Evaluation requirement if:
* * * *	* * *
Wireless Communications Service (part 27).....	(1) for the 1390-1392 MHz, 1392-1395 MHz, 1432-1435 MHz , and 1670-1675 MHz bands: Non-building-mounted antennas: height above ground level to lowest point of antenna < 10 m and total power of all channels > 2000 W ERP (3280 W EIRP) Building-mounted antennas: total power of all channels > 2000 W ERP (3280 W EIRP) (2) for the 746-764 MHz, 776-794 MHz, 2305-2320 MHz, and 2345-2360 MHz bands Total power of all channels > 1000 W ERP (1640 W EIRP)
* * * *	* * *

* * * * *

PART 2 – FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

3. The authority citation for part 2 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 302a, 303, and 336, unless otherwise noted.

4. Section 2.106, the Table of Frequency Allocations, is amended as follows:

a. Revise pages 47, 48, 49 and 51.

b. In the list of United States (US) footnotes, revise footnotes US276 and US346, delete US363, and add footnote US391.

c. In the list of non-Federal Government (NG) footnotes, delete footnote NG174.

d. In the list of Federal Government (G) footnotes, revise footnotes G2, G120, and G122.

§ 2.106 Table of Frequency Allocations.

The revisions and additions read as follows:

* * * * *

International Table			United States Table		FCC Rule Part(s)
Region 1	Region 2	Region 3	Federal Government	Non-Federal Government	
1670-1675 METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE 5.380 5.341			1670-1675 5.341 US211 US362	1670-1675 FIXED MOBILE except aeronautical mobile 5.341 US211 US362	Wireless Communications (27)
1675-1690 METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.341	1675-1690 METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile MOBILE-SATELLITE (Earth-to-space) 5.341 5.377	1675-1690 METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.341	1675-1700 METEOROLOGICAL AIDS (radiosonde) METEOROLOGICAL-SATELLITE (space-to-Earth)		
1690-1700 METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) Fixed Mobile except aeronautical mobile 5.289 5.341 5.382	1690-1700 METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (Earth-to-space) 5.289 5.341 5.377 5.381	1690-1700 METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) 5.289 5.341 5.381	 5.289 5.341 US211		
1700-1710 FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.289 5.341	1700-1710 FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile MOBILE-SATELLITE (Earth-to-space) 5.289 5.341 5.377	1700-1710 FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.289 5.341 5.384	1700-1710 FIXED G118 METEOROLOGICAL-SATELLITE (space-to-Earth) 5.289 5.341	1700-1710 METEOROLOGICAL-SATELLITE (space-to-Earth) Fixed 5.289 5.341	
1710-1930 FIXED MOBILE 5.380 5.384A 5.388A			1710-1755 5.341 US311 US378	1710-1755 FIXED MOBILE 5.341 US311 US378 NG176	Wireless Communications (27)

5.149 5.341 5.385 5.386 5.387 5.388			1755-1850 FIXED MOBILE G42	1755-1850	
1930-1970 FIXED MOBILE 5.388A 5.388	1930-1970 FIXED MOBILE 5.388A Mobile-satellite (Earth-to-space) 5.388	1930-1970 FIXED MOBILE 5.388A 5.388	1850-2025	1850-2000 FIXED MOBILE NG177	RF Devices (15) Personal Communications (24) Fixed Microwave (101)
1970-1980 FIXED MOBILE 5.388A 5.388					
1980-2010 FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) 5.351A 5.388 5.389A 5.389B 5.389F				2000-2020 MOBILE-SATELLITE (Earth-to-space) US380 NG156	Satellite Communications (25)
2010-2025 FIXED MOBILE 5.388A 5.388	2010-2025 FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) 5.388 5.389C 5.389D 5.389E 5.390	2010-2025 FIXED MOBILE 5.388A 5.388		2020-2025 FIXED MOBILE NG177	
2025-2110 SPACE OPERATION (Earth-to-space) (space-to-space) EARTH EXPLORATION-SATELLITE (Earth-to-space) (space-to-space) FIXED MOBILE 5.391 SPACE RESEARCH (Earth-to-space) (space-to-space) 5.392			2025-2110 SPACE OPERATION (Earth-to-space) (space-to-space) EARTH EXPLORATION-SATELLITE (Earth-to-space) (space-to-space) SPACE RESEARCH (Earth-to-space) (space-to-space) 5.391 5.392 US90 US222 US346 US347 US391	2025-2110 FIXED NG23 NG118 MOBILE 5.391 5.392 US90 US222 US346 US347 US391	TV Auxiliary Broadcasting (74F) Cable TV Relay (78) Local TV Transmission (101J)

International Table			United States Table		FCC Rule Part(s)
Region 1	Region 2	Region 3	Federal Government	Non-Federal Government	
2110-2120 FIXED MOBILE 5.388A SPACE RESEARCH (deep space) (Earth-to-space) 5.388			2110-2120 US252	2110-2155 FIXED MOBILE US252	Domestic Public Fixed (21) Public Mobile (22) Wireless Communications (27) Fixed Microwave (101)
2120-2160 FIXED MOBILE 5.388A 5.388	2120-2160 FIXED MOBILE 5.388A Mobile-satellite (space-to-Earth) 5.388	2120-2170 FIXED MOBILE 5.388A	2120-2200	2155-2160 FIXED	Domestic Public Fixed (21) Fixed Microwave (101)
2160-2170 FIXED MOBILE 5.388A 5.388 5.392A	2160-2170 FIXED MOBILE 5.388A MOBILE-SATELLITE (space-to-Earth) 5.388 5.389C 5.389D 5.389E 5.390	5.388		2160-2180 FIXED NG153 MOBILE NG178	Domestic Public Fixed (21) Public Mobile (22) Fixed Microwave (101)
2170-2200 FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) 5.351A 5.388 5.389A 5.389F 5.392A				2180-2200 MOBILE-SATELLITE (space-to-Earth) US380 NG168	Satellite Communications (25)
2200-2290 SPACE OPERATION (space-to-Earth) (space-to-space) EARTH EXPLORATION-SATELLITE (space-to-Earth) (space-to-space) FIXED MOBILE 5.391 SPACE RESEARCH (space-to-Earth) (space-to-space)			2200-2290 SPACE OPERATION (space-to-Earth) (space-to-space) EARTH EXPLORATION-SATELLITE (space-to-Earth) (space-to-space) FIXED (line-of-sight only)	2200-2290	

International Table			United States Table		FCC Rule Part(s)
Region 1	Region 2	Region 3	Federal Government	Non-Federal Government	
See previous page for 2300-2450 MHz			2345-2360 Fixed Mobile US339 Radiolocation G2 G120 US327	2345-2360 FIXED MOBILE US339 RADIOLOCATION BROADCASTING-SATELLITE 5.396 US327	Wireless Communications (27) Aviation (87)
			2360-2390 MOBILE US276 RADIOLOCATION G2 G120 Fixed	2360-2390 MOBILE US276	Aviation (87)
			2390-2395 MOBILE US276	2390-2395 MOBILE US276 AMATEUR	Aviation (87) Amateur (97)
			2395-2400 G122	2395-2400 AMATEUR	Amateur (97)
			2400-2402 5.150 G123	2400-2417 AMATEUR	ISM Equipment (18) Amateur (97)
			2402-2417 5.150 G122	 5.150 5.282	
			2417-2450 Radiolocation G2 5.150 G124	2417-2450 Amateur 5.150 5.282	
2450-2483.5 FIXED MOBILE Radiolocation 5.150 5.397	2450-2483.5 FIXED MOBILE RADIOLOCATION 5.150 5.394		2450-2483.5 5.150 US41	2450-2483.5 FIXED MOBILE Radiolocation 5.150 US41	ISM Equipment (18) TV Auxiliary Broadcasting (74F) Private Land Mobile (90) Fixed Microwave (101)

* * * * *

UNITED STATES (US) FOOTNOTES

* * * * *

US276 Except as otherwise provided for herein, use of the band 2360-2395 MHz by the mobile service is limited to aeronautical telemetering and associated telecommand operations for flight testing of aircraft, missiles or major components thereof. The following three frequencies are shared on a co-equal basis by Federal and non-Federal stations for telemetering and associated telecommand operations of expendable and reusable launch vehicles whether or not such operations involve flight testing: 2364.5 MHz, 2370.5 MHz, and 2382.5 MHz. All other mobile telemetering uses shall be secondary to the above uses.

* * * * *

US346 Except as provided for below and by footnote US222, Federal use of the band 2025-2110 MHz by the space operation service (Earth-to-space), Earth exploration-satellite service (Earth-to-space), and space research service (Earth-to-space) shall not constrain the deployment of the Television Broadcast Auxiliary Service, the Cable Television Relay Service, or the Local Television Transmission Service. To facilitate compatible operations between non-Federal terrestrial receiving stations at fixed sites and Federal earth station transmitters, coordination is required. To facilitate compatible operations between non-Federal terrestrial transmitting stations and Federal spacecraft receivers, the terrestrial transmitters in the band 2025-2110 MHz shall not be high-density systems (see Recommendations ITU-R SA.1154 and ITU-R F.1247). Military satellite control stations at the following sites shall operate on a co-equal, primary basis with non-Federal operations:

Facility	Coordinates	
Naval Satellite Control Network, Prospect Harbor, ME	44° 24' 16" N	068° 00' 46" W
New Hampshire Tracking Station, New Boston AFS, NH	42° 56' 52" N	071° 37' 36" W
Eastern Vehicle Check-out Facility & GPS Ground Antenna & Monitoring Station, Cape Canaveral, FL	28° 29' 09" N	080° 34' 33" W
Buckley AFB, CO	39° 42' 55" N	104° 46' 36" W
Colorado Tracking Station, Schriever AFB, CO	38° 48' 21" N	104° 31' 43" W
Kirtland AFB, NM	34° 59' 46" N	106° 30' 28" W
Camp Parks Communications Annex, Pleasanton, CA	37° 43' 51" N	121° 52' 50" W
Naval Satellite Control Network, Laguna Peak, CA	34° 06' 31" N	119° 03' 53" W
Vandenberg Tracking Station, Vandenberg AFB, CA	34° 49' 21" N	120° 30' 07" W
Hawaii Tracking Station, Kaena Pt, Oahu, HI	21° 33' 44" N	158° 14' 31" W
Guam Tracking Stations, Anderson AFB, and Naval CTS, Guam	13° 36' 54" N	144° 51' 18" E

* * * * *

US391 In the band 2025-2110 MHz, the military services may operate stations in the fixed and mobile except aeronautical mobile services on a secondary and coordinated basis at the following sites:

Site	Coordinates	Radius of Operation (km)
Nellis AFB, NV	36° 14' N 115° 02' W	80
China Lake, CA	35° 41' N 117° 41' W	50
Ft. Irwin, CA	35° 16' N 116° 41' W	50
Pacific Missile Test Range/Pt. Mugu, CA	34° 07' N 119° 30' W	80
Yuma, AZ	32° 32' N 113° 58' W	80
White Sands Missile Range, NM	33° 00' N 106° 30' W	80

* * * * *

FEDERAL GOVERNMENT (G) FOOTNOTES

* * * * *

G2 In the bands 216-225 MHz, 420-450 MHz (except as provided by US217), 890-902 MHz, 928-942 MHz, 1300-1390 MHz, 2310-2390 MHz, 2417-2450 MHz, 2700-2900 MHz, 5650-5925 MHz, and 9000-9200 MHz, the Federal radiolocation service is limited to the military services.

* * * * *

G120 Development of airborne primary radars in the band 2360-2390 MHz with peak transmitter power in excess of 250 watts for use in the United States is not permitted.

G122 In the bands 2395-2400 MHz, 2402-2417 MHz, and 4940-4990 MHz, Federal operations may be authorized on a non-interference basis to authorized non-Federal operations, but shall not hinder the implementation of any non-Federal operations.

* * * * *

PART 15 – RADIO FREQUENCY DEVICES

5. The authority citation for part 15 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 302, 303, 304, 307, 336, and 554A.

6. Section 15.301 is amended to read as follows:

§ 15.301 Scope.

This subpart sets out the regulations for unlicensed personal communications services (PCS) devices operating in the 1920-1930 MHz band.

7. Section 15.303 is amended by revising paragraph (g) to read as follows:

§ 15.303 Definitions.

* * * * *

(g) *Personal Communications Services (PCS) Devices [Unlicensed].* Intentional radiators operating in the frequency band 1920-1930 MHz that provide a wide array of mobile and ancillary fixed communication services to individuals and businesses.

* * * * *

8. Section 15.319 is amended to remove and reserve paragraph (a) to read as follows:

§ 15.319 General technical requirements.

(a) [Reserved]

* * * * *

9. Section 15.321 is removed and reserved to read as follows:

§ 15.321 [Reserved]

* * * * *

PART 27 – MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES

10. The authority citation for Part 27 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 301, 302, 303, 307, 309, 332, 336, and 337, unless otherwise noted.

11. Section 27.1 is amended by removing paragraph (b)(7):

§ 27.1 Basis and purpose.

* * * * *

(b) * * *

12. Section 27.4 is amended by revising the definition of Band Manager to read as follows:

§ 27.4 Terms and definitions.

* * * * *

Band Manager. The term Band Manager refers to a licensee in the paired 1392-1395 MHz and 1432-1435 MHz bands and the unpaired 1390-1392 MHz, and 1670-1675 MHz bands that functions solely as a spectrum broker by subdividing its licensed spectrum and making it available to system operators or directly to end users for fixed or mobile communications consistent with Commission Rules. A Band Manager is directly responsible for any interference or misuse of its licensed frequency arising from its use by such non-licensed entities.

* * * * *

13. Section 27.5 is amended by removing paragraph (g):

§ 27.5 Frequencies.

* * * * *

14. Section 27.6 is amended by removing paragraph (g):

§ 27.6 Service areas.

* * * * *

15. Section 27.11 is amended by removing paragraph (h).

§ 27.11 Initial authorization.

* * * * *

16. Section 27.12 is amended to revise paragraph (b) to read as follows.

§ 27.12 Eligibility.

* * * * *

(b) Band Manager licenses. For the 1392-1395 MHz and 1670-1675 MHz bands and the paired 1392-1395 MHz and 1432-1435 MHz bands, applicants applying for an initial license may elect to operate as a Band Manager, subject to the rules governing Guard Band Managers under subpart G, provided however, that the following rules do not apply to Band Managers:

* * * * *

17. Section 27.13 is amended by removing paragraph (f).

§ 27.13 License period.

* * * * *

18. Section 27.50 is amended by removing paragraphs (g), (g)(1), and (g)(2) and redesignating paragraph (h) as paragraph (g).

§ 27.50 Power and antenna height limits.

* * * * *

19. Section 27.53 is amended by removing paragraph (k) and redesignating paragraph (l) as paragraph (k).

§ 27.53 Emission limits.

* * * * *

20. Subpart K is deleted.

PART 87 – AVIATION SERVICES

21. The authority citation for Part 87 continues to read as follows:

AUTHORITY: 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303, 307(e) unless otherwise noted. Interpret or apply 48 Stat. 1064-1068, 1081-1105, as amended; 47 U.S.C. 151-156, 301-609.

22. Section 87.173 is amended by revising the entry for "2310-2390 MHz" to read as follows:

§ 87.173 Frequencies.

* * * * *

(b) Frequency table:

Frequency or frequency band	Subpart	Class of station	Remarks
* *	* *	* *	*
2310-2395 MHz	J	MA, FAT	Aeronautical telemetry and telecommand operations.
* *	* *	* *	*

23. Section 87.303 is amended by revising paragraph (d)(1) to read as follows:

§ 87.303 Frequencies.

* * * * *

(d)(1) Frequencies in the bands 1435-1525 MHz and 2360-2395 MHz are assigned primarily for telemetry and telecommand operations associated with the flight testing of aircraft and missiles, or their major components. The bands 1525-1535 MHz and 2310-2360 MHz are also available for these purposes on a secondary basis. Permissible uses of these bands include telemetry and telecommand transmissions associated with the launching and reentry into the Earth's atmosphere, as well as any incidental orbiting prior to reentry, of objects undergoing flight tests. In the band 1435-1530 MHz, the following frequencies are shared with flight telemetry mobile stations: 1444.5, 1453.5, 1501.5, 1515.5, 1524.5, and 1525.5 MHz. In the band 2360-2390 MHz, the following frequencies may be assigned on a co-equal basis for telemetry and associated telecommand operations in fully operational or expendable and re-usable launch vehicles, whether or not such operations involve flight testing: 2364.5, 2370.5 and 2382.5 MHz. In the band 2360-2395 MHz, all other mobile telemetry uses are secondary to the above stated launch vehicle uses.

* * * * *

PART 97--AMATEUR RADIO SERVICE

24. The authority citation for Part 97 continues to read as follows:

AUTHORITY: 48 Stat. 1066, 1082, as amended: 47 U.S.C. 154, 303. Interpret or apply 48 Stat. 1064-1068, 1081-1105, as amended; 47 U.S.C. 151-155, 301-609, unless otherwise noted

25. Section 97.303(j)(2)(iii) is modified to read as follows:

§ 97.303 Frequency sharing requirements.

* * * * *

(j) * * * * *

(2) * * * * *

(iii) The 2390-2417 MHz segment is allocated to the amateur service on a primary basis.

(A) The 2390-2395 MHz segment is shared with Federal and non-Federal Government mobile services on a co-equal basis. See 47 C.F.R. § 2.106, footnote US276.

(B) Amateur stations operating in the 2400-2417 MHz segment must accept harmful interference that may be caused by the proper operation of industrial, scientific and medical equipment.

* * * * *

STATEMENT OF
CHAIRMAN MICHAEL K. POWELL

Re: Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, Including Third Generation Wireless Systems, ET Docket No. 00-258; Amendments to Parts 1, 2, 27 and 90 of the Commission's Rules to License Services in the 216-220 MHz, 1390-1395 MHz, 1426-1432 MHz, 1432-1435 MHz, 1670-1675 MHz, and 2385-2390 MHz Government Transfer Bands, WT Docket No. 02-8; Seventh Report and Order ("Seventh R&O").

The Report and Order issued today represents the final step in the Commission's efforts to free valuable spectrum nationwide for third generation (3G) technologies. With the outstanding cooperation of the National Telecommunications and Information Administration (NTIA), today's report has enabled us to make spectrum available for the relocation of Government systems that are incumbent operations in the 90 MHz of new AWS spectrum (1710-1755 MHz/2110-2155 MHz) of which 45 MHz (1710-1755 MHz) are from Government spectrum. I applaud the efforts of the Office of Engineering and Technology and the continued support and help from NTIA. All Americans will benefit from the future use of this spectrum and I look forward to our continued commitment to support advanced technologies.